

### 1 Determinants of sealant use among government and private Thai dentists. C. HOSANGUAN<sup>1</sup> and S. CHANDUAYKIT<sup>2</sup> (<sup>1</sup>Chulalongkorn Univ., <sup>2</sup>Ministry of Public Health, Thailand).

Adoption of sealant use is affected by many interrelated professional, practice, and patients factors. The purpose of this study was to identify factors that relate to sealant use among government and private dentists. Data were collected by the use of mail questionnaires sent to a random sample of 1,222 Thai dentists. A total of 439 completed questionnaires were returned, 239 of which were from government dentists and 200 were from private dentists. The results show that private dentists provided sealant to their child patients more frequently than government dentists ( $p=0.002$ ). By means of discriminant analyses, factors related to private dentists' use of sealant were the proportion of child patients in a recall system, socioeconomic status of child patients, practice size, and professional consultation. For government dentists, discriminating factors of sealant use were the proportion of recall child patients and perceived barrier of usage. High-users of sealant were classified correctly in 73.3% and 61.7% in the private and government dentists, respectively. This study points to the importance of practice characteristics when deciding on sealant use. This study was supported by grant from the Ministry of Public Health.

### 2 Patient Satisfaction in University Malaya's Student Dental Clinic. R. ABDUL-KADIR\* and RR. RAJA-ABD-FAROUK. Faculty of Dentistry, University of Malaya, Kuala Lumpur, MALAYSIA

Most patients have explicit desires or requests when they visit their dentists. They include desires for information, treatment, psychosocial assistance or simply that their dentist listens to their concerns. Identification of these requests and needs is the starting point of a patient-centered approach to care. In an effort to identify such requests and needs, a self-administered questionnaire survey to look into patients' satisfaction was conducted amongst University of Malaya's students who attended the Student Dental Clinic. Participation was on a voluntary basis. In all, 346 students who attended the clinic between July to December 1998 participated in the survey. Results from the survey showed that 79.4% of the respondents came to the clinic because there is no additional charges incurred. However, 68.5% answered they will still come to seek service at the clinic even if minimum fees is imposed. Findings from the survey also indicated that overall, more than three-fourths of the respondents (79.7%) were satisfied with the services provided. However, almost half (45.5%) of those who answered to the question, felt that the clinic is not spacious enough. In addition, while many felt that the opening hours is appropriate (70.3%) and the waiting area is comfortable (65.7%), however, only 60.9% agreed that the clinic is located strategically to the whole campus. To the question relating to appointment, many felt that it is hard to get an early appointment (70.3%) while 40.4% felt waiting time to see a dentist is too lengthy. In addition, 59.9% of the respondents felt that the appointment interval is far apart. In spite of this, 22.9% said they will still come to the clinic because they don't know where else to go. Regression analysis showed that no extra fees charged, dentist treating patient with respect, comfortable waiting area, ability of dentists to relieve or cure most of the respondents' problem and, being professionally and courteously treated by the receptionist are significant predictors to being satisfied with the services provided. Findings from this study conclude that although patients are generally satisfied with the service provided, other feedback mechanism to monitor patient satisfaction, such as patient comments and suggestion forms, should be introduced. In addition, strategies to improve quality of care through improvement in staff attitudes and human relations are found to be as equally important as the management skills of the dentists providing treatment.

### 3 Prevalence of latex glove sensitivity among dental personnel in a dental school W. LERDRIIT\*, V. NIMMANON, P. PACHIMSAWAT, P. ATSAWASUWAN, K. CHALITANGKOOK, AND P. VICHYANOND (FACULTY OF DENTISTRY, MAHIDOL UNIVERSITY, BANGKOK, THAILAND)

Dental personnel who routinely use latex glove are at increased risk for latex glove sensitivity. Symptoms can range from contact dermatitis, urticaria and life-threatening anaphylaxis. The objective of this study was to determine the prevalence of latex glove sensitivity as assessed by its clinical symptoms among dental personnel of Mahidol University. A total of 472 dental personnel completed the questionnaires. Of the participants, 37.3% were dentists, 21% were dental assistants and 41.7% were dental students. The results showed that 84 subjects reported experiences of sensitivity to latex glove amounting to prevalence of 17.8%. Overall the most common symptom was skin reaction, itching (90.5%) and rash (51.2%). Respiratory and eye symptoms were reported 18 and 14.3% respectively. Analysis of data indicated that there was an association between latex glove sensitivity with age, duration of work, sweating while wearing gloves, and personal and family history of allergic disease. One hundred and seven volunteers underwent skin prick testing. Five of them (4.7%) reported positive skin prick test to latex. Two out of five volunteers reported no experience of latex glove sensitivity. It is therefore imperative to increase the awareness of latex glove sensitivity and the knowledge about appropriate use of gloves in order to prevent and reduce the risk of latex sensitivity.

### 4 Premature Termination of Orthodontic Treatment in Hospital Practice in Sri Lanka. S.P.N.P. NAGARATHNE (Faculty of Dental Sciences, University of Peradeniya, Peradeniya, Sri Lanka)

In a state funded orthodontic service with severe shortage of manpower, inability to pay adequate attention during case selection can lead to failure of identifying patients who may discontinue treatment prematurely. As the failure to complete treatment is one of the greatest risks of orthodontic treatment, the expected benefit of orthodontic treatment in a state funded orthodontic unit is doubtful. The aim of the present investigation was to find out the nature of the patients who have terminated orthodontic treatment prematurely, in order to take precautions to reduce the drop out rate in the hospital practice. The sample studied consists of records of 100 consecutively started orthodontic patients treated by a specialist. Some of the relevant features of all cases which included age, gender, distance traveled, reason for attendance, feature corrected, pattern of extractions, type of appliance used and the severity of malocclusion were investigated. The study casts of all the cases scored using PAR (Peer Assessment Rating) index to determine the severity of malocclusion. The drop-out rate of the sample was found to be 26%. The comparison of completed and discontinued groups revealed that the drop out rate was not related to the severity of malocclusion (Mean PAR score completed group 34.69, Discontinued group 32.46). The rate of discontinuation was also not related to the age, gender, distance traveled, reason for attendance, and to the feature corrected. A greater rate of discontinuation of treatment was seen in cases treated with removable appliances (41.2%) when compared with fixed appliance cases (11.1%) and in non extraction cases (32.5%) when compared with extraction cases. (21.7%)

### 5 Oral Health of Children of Filipino Immigrant Women in Japan K. M. G. CARINOG\*, S. SAN MIGUEL, Y. KAWAGUCHI, K. SHINADA, N. SHIMURA (Faculty of Dentistry, Tokyo Medical and Dental University, Japan)

This study was a preliminary survey undertaken to determine the oral health status and behavior of Filipino-Japanese children, and the child-rearing practices of their mothers. A further aim was to compare the results with existing national data for Japanese children. The sample consisted of 194 children from 130 families (82 boys, 112 girls) with a mean age of 4.8 years. Clinical data were obtained following WHO criteria. A pre-tested, structured questionnaire was administered for demographic and behavioral information. Caries experience was 2.6 (DT 1.5), higher than that of Japanese children compared by age group. Use of a bedtime nursing bottle (67%) and weaning at over 2 years old (50%) were common but not statistically significant for caries occurrence ( $p=0.09$  and  $p=0.84$  respectively). This is contrary to previous Japanese studies, which suggest that nursing bottle use and weaning at over 18 months contribute to caries occurrence. Dental service utilization was high: 93% last visited the dentist one-year ago or less, and 71% for routine check-up initiated by either government health center or school. The mothers (mean age 32 years) correctly evaluated their children's oral health status ( $p<0.01$ ). A large proportion assisted their children in brushing (84%), served both Japanese and Filipino meals (64%), relied on dentist's recommendation for treatment of deciduous teeth (72%), and opined that a child's first dental visit should be at ages 1-3 years (72%). These preliminary results suggest that further attention is needed to improve the oral health status of children of Filipino immigrant women.

### 6 Association Between Self-Report of Nocturnal Bruxism and Clinical Signs. A. LADPLI\*, P. CHAITIRAPAPKUL and U. LIKITRATANAKORN (Department of Occlusion, Faculty of Dentistry, Chulalongkorn University)

The objective of this research is to study the relationship between self-report of nocturnal bruxism and clinical signs. One hundred and six third year dental students, comprising of 25 males and 81 females with age range of 18-21 years participated in the study. The subjects were asked to complete questionnaires and were clinically examined. Results showed that 8 subjects (7.55%) currently having nocturnal bruxism, 13 subjects (12.26%) reported had nocturnal bruxism in the past. 58 subjects (54.72%) denied experiencing nocturnal bruxism and 27 subjects (25.47%) reported not knowledge of bruxism. The clinical signs being studied were wear on nonfunctional cusp, tenderness on masticatory muscles and associated muscles, tongue ridging, mucosal ridging, masseter hypertrophy, match facets, enamel crack, broken restoration & teeth, tooth pain on percussion and tooth mobility. Statistical analysis using  $\chi^2$  test found that self-report bruxism is significantly associated with wear on nonfunctional cusp, tenderness on masticatory muscles and associated muscles, broken restoration & teeth and tooth pain on percussion ( $p = 0.047, 0.034, 0.015, 0.0001$  respectively), but found no association with other clinical signs. Although the results of this study were drawn only from self-report bruxism, it suggests that wear on nonfunctional cusp, tenderness on masticatory muscles and associated muscles, broken restoration & teeth and tooth pain on percussion can be used to indicate that one has bruxism from clinical examination in conjunction with history taking. This study was supported by Dental Research Fund, #31/1998, Faculty of Dentistry, Chulalongkorn University.

### 7 Clinical Performance of Dyract AP Compomer - Six Months Evaluation. Y. LUO\*, E.C.M. LO, S.H.Y. WEI, and R.J. SMALES (Faculty of Dentistry, The University of Hong Kong)

The aim of this longitudinal investigation is to evaluate the clinical performance of a new compomer restorative system - NRC (conditioner) + Prime & Bond NT (adhesive) + Dyract AP (compomer) in Class I/II cavities in posterior permanent teeth. A total of 50 Class II and 41 Class I restorations were placed in 39 patients. After 6 months, 36 subjects and 84 restorations (39 Class I and 45 Class II) were evaluated using modified Ryge/USPHS criteria. All of the evaluated restorations were clinically acceptable. No post-operative sensitivity and pulpal problems were found. All restorations were rated 'Alfa' for 'colour match' and 'anatomic form'. The surface of the compomer was very smooth and only one restoration was rated 'Bravo'. No recurrent caries was detected. Compared to the baseline results, small crevices detectable by the explorer catching were noted more frequently at the 6-month recall, and the score of 'Bravo' for 'marginal discoloration' ( $n=9$ ) and 'marginal integrity' ( $n=16$ ) increased significantly (Fisher's exact test,  $p < 0.01$ ). For the Class II restorations, the gingival status were found to be improved. Score of '0' (healthy appearance) increased significantly from 74% to 100% (Fisher's exact test,  $p < 0.01$ ). There was no statistical difference relating to each criterion between Class I and II restorations (Fisher's exact test,  $p > 0.05$ ). In conclusion, the 6-month findings continued to support the use of Dyract AP in stress-bearing posterior areas. The clinical performance of the restorative system was satisfactory.

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### 8 High Strength Glass Ionomer for the ART Technique: One-year Results. Y. LUO, S.H.Y. WEI\*, M.W. FAN\* and E.C.M. LO. (Faculty of Dentistry, The University of Hong Kong and \*School of Stomatology, Hubei Medical University, Wuhan, China)

This study was a randomized clinical trial to compare the clinical performance of ChemFlex with Fuji IX GP when used in the Atraumatic Restorative Treatment (ART) technique in posterior primary and permanent teeth in school children in China. 92 school children (6-14 years) that had bilateral matched pairs of carious posterior teeth were included. A split mouth design was used to place the two restorative materials on contra-lateral sides randomly. The performance of the restorations was assessed with 0.5mm ball-tip of CPITN periodontal probe at baseline, 6 months and 12 months. The evaluation criteria were success (filling present and sound; or slight defect or wear less than 0.5mm) and failure (major defect or wear  $> 0.5$ mm; filling dislodged or in need of replacement). After one year, the success rates of ART restorations in the primary teeth, were 96.6% for ChemFlex restorations and 89.7% for Fuji IX GP restorations placed in the Class I cavity preparations; while 46.2 - 61.5% of Class II restorations were assessed as clinically satisfactory. In the permanent dentition, only Class I restorations were involved and the success rates were 94.6% and 98.2% for ChemFlex and Fuji IX GP, respectively.

Silicon impressions were taken at each recall time to construct study casts in order to measure occlusal wear using the Rheinberger scale. After one year, the mean wear values for ChemFlex and Fuji IX GP in the permanent teeth were 53.2  $\pm$  20.5 and 56.3  $\pm$  17.5 micrometers, respectively. However, there was no statistical significant difference between the two materials (Chi-square,  $p>0.05$ ). It may be concluded that the clinical performance of both ChemFlex and Fuji IX GP over a 12 months period is highly satisfactory and adequate for the ART technique, particularly in Class I cavities. Furthermore, clinicians now have a choice of using ChemFlex as the new material for the ART technique. (This study was supported in part by a grant from Dentsply DeTrey, and a grant from the University of Hong Kong.)